

CLAIMS

We claim:

1. A signaling assembly, comprising:
a reflective substrate having opposite first and second surfaces;
an electromagnetic radiation emitter for emitting visibly discernible electromagnetic radiation and which is borne by the second surface of the reflective substrate; and
a light channeling assembly positioned near the electromagnetic radiation emitter, and which directs the emitted visibly discernible electromagnetic radiation in a direction where it may be viewed from a location which is forward of one of the first and/or second surfaces of the reflective substrate.
2. A signaling assembly as claimed in claim 1, and further comprising:
a housing defining an internal cavity, and further defining first and second apertures, and wherein the reflective substrate partially occludes the first aperture, and wherein the second surface of the reflective substrate is received within the cavity; and
a translucent substrate positioned in substantially occluding relation relative to the second aperture.
3. A signaling assembly as claimed in claim 2, and wherein a gap is defined between the reflective substrate, and the housing, and wherein the light channeling assembly directs a first portion of the emitted visibly discernible electromagnetic radiation through the gap so that it may be viewed from a location forward of the first surface, and a second portion of the visibly discernible electromagnetic radiation

through the translucent substrate so that it may be viewed from a location forward of the second surface.

4. A signaling assembly as claimed in claim 2, and wherein a gap is defined between the reflective substrate, and the housing, and wherein the light channeling assembly directs a portion of the emitted visibly discernible electromagnetic radiation through the translucent substrate so that it may be viewed from a location forward of the second surface, and which further substantially inhibits the passage of emitted visibly discernible electromagnetic radiation through the gap.

5. A signaling assembly as claimed in claim 4, and further comprising:
a plurality of electromagnetic radiation emitters borne by the second surface of the reflective substrate, and wherein the reflective substrate simultaneously reflects and passes visibly discernible electromagnetic radiation; and

a reflector having first and second portions, and wherein the individual portions are disposed in reflecting relation relative to at least one of the plurality of electromagnetic radiation emitters, and wherein the first portion of the reflector reflects electromagnetic radiation emitted by one of the plurality of electromagnetic radiation emitters in a first direction so that it may pass through the reflective substrate, and be seen from a first position, and the second portion of the reflector reflects electromagnetic radiation emitted by one of the plurality of electromagnetic radiation emitters in a second direction so that it may be viewed from a second position which is substantially opposite to the first position.

6. A signaling assembly as claimed in claim 5, and wherein the plurality of electromagnetic radiation emitters are each mounted in substantially the same orientation relative to the second surface of the of the reflective substrate.

7. A signaling assembly as claimed in claim 5, and wherein the plurality of electromagnetic radiation emitters are individually mounted in different orientations relative to the second surface of the reflective substrate.

8. A signaling assembly as claimed in claim 5, and wherein the first portion of the reflector is disposed in substantially eccentric reflecting relation relative to the at least one electromagnetic radiation emitter, and the second portion of the reflector is disposed in substantially concentric reflecting relation relative to the at least one electromagnetic radiation emitter.

9. A signaling assembly as claimed in claim 5, and wherein the reflective substrate has a reflective coating deposited thereon to a thickness which permits the passage of electromagnetic radiation therethrough.

10. A signaling assembly as claimed in claim 9, and wherein the reflective coating comprises chromium.

11. A signaling assembly as claimed in claim 9, and wherein the reflective coating comprises a dichroic coating.

12. A signaling assembly, comprising:

a housing having a sidewall which defines an internal cavity, and first and second apertures;

a reflective substrate having opposite, first and second surfaces, and a peripheral edge, and which further partially occludes the first aperture that is defined by the housing, and wherein a gap is defined between the reflective substrate and the sidewall;

a translucent substrate disposed in substantially occluding relation relative to the second aperture;

an electromagnetic radiation emitter mounted on the second surface of the reflective substrate and which, when energized, emits visibly discernible electromagnetic radiation having first and second portions, and wherein the second portion of the visibly discernible electromagnetic radiation passes through the translucent substrate; and

a light channeling assembly disposed, at least in part, against the sidewall of the housing, and which reflects the first portion of the visibly discernible electromagnetic radiation through the gap which is defined between the sidewall and the reflective substrate.

13. A signaling assembly as claimed in claim 12, and wherein the first and second portions of the visibly discernible electromagnetic radiation form visibly discrete visual signals which can be viewed from substantially opposite locations relative to the housing.

14. A signaling assembly as claimed in claim 13, and wherein the light channeling assembly includes a sidewall which defines a passageway, and which has opposite first and second ends, and wherein the gap defined between the reflective substrate and the sidewall of the housing has a width dimension, and wherein the first end of the passageway has a cross sectional dimension which is less than width dimension of the gap.

15. A signaling assembly as claimed in claim 14, and wherein the sidewall of the housing defines, in part the passageway, and wherein the first end of the light channeling assembly is positioned adjacent to the second surface of the reflective substrate, and the second end of the light channeling assembly is located in spaced relation relative to the second surface of the reflective substrate.

16. A signaling assembly as claimed in claim 15, and wherein the second end of the passageway defines a primary reflecting surface which reflects the first portion of the visibly discernible electromagnetic radiation along the passageway and through the gap to form a visibly discernible signal.

17. A signaling assembly, comprising:
a housing having a sidewall defining an internal cavity and first and second apertures;
a reflective substrate having a peripheral edge, and which is disposed in substantially occluding relation relative to first aperture; and

an electromagnetic radiation emitter borne by the reflective substrate and emitting visibly discernible electromagnetic radiation into the cavity, and wherein a first portion of the visibly discernible electromagnetic radiation passes around the peripheral edge of the reflective substrate and forms a first visibly discernible signal which can be seen from a first position, and a second portion of the visibly discernible electromagnetic radiation passes through the second aperture and forms a second visibly discernible signal which can be seen from a second location, and wherein the first and second locations are angularly displaced one relative to the other by greater than about 90 degrees.

18. A signaling assembly for an overland vehicle, comprising:

a mirror housing borne by the overland vehicle and which can be visibly discerned from a first position which is located laterally and rearwardly of the overland vehicle, and a second position which is located laterally and forwardly of the overland vehicle;

a mirror having a peripheral edge, and which is borne by the mirror housing; and

a light emitting assembly borne by the housing, and which emits light which passes between the mirror and the mirror housing to form a first visibly discernible signal which can be viewed from the first location, and which further passes through the housing to form a second visibly discernible signal which can be viewed from the second location.

19. A signaling assembly, comprising:

a mirror housing having a sidewall defining an internal cavity and first and second apertures;

a reflective substrate having a peripheral edge, and which is disposed in partially occluding relation relative to the first aperture;

an electromagnetic radiation emitter borne by the reflective substrate, and located within the internal cavity of the housing, and which, when energized, emits visibly discernible electromagnetic radiation which passes through the second aperture and which can be visibly discerned from a location at a distance from the mirror housing; and

a light channeling assembly positioned in the internal cavity and adjacent to the electromagnetic radiation emitter and which directs visibly discernible electromagnetic radiation through the second aperture and which further substantially impedes emitted visibly discernible electromagnetic radiation from passing around the peripheral edge of the mirror.

20. A signaling assembly as claimed in claim 19, and further comprising:

a motor mounting bracket positioned in the internal cavity, and wherein the light channeling assembly is made integral with the motor mounting bracket or housing.

21. A signaling assembly as claimed in claim 20, and wherein the light channeling assembly has a main body defined by a peripheral edge, and wherein a portion of the peripheral edge of the main body is positioned adjacent to the sidewall of the mirror housing.

22. A signaling assembly as claimed in claim 21, and wherein the main body of the light channeling assembly defines an aperture through which the visibly discernible electromagnetic radiation passes, and wherein the main body of the light channeling assembly is positioned therebetween the reflective substrate and the second aperture which is defined by sidewall of the mirror housing.

23. A signaling assembly as claimed in claim 22, and wherein the peripheral edge of the light channeling assembly has a first portion which is located at a first distance from the reflective substrate, and a second portion which is located at a second distance from the reflective substrate, and wherein the first distance is greater than the second distance.

24. A signaling assembly as claimed in claim 22, and wherein the electromagnetic radiation emitter includes a plurality of electromagnetic radiation emitters borne by the reflective substrate and which are located within the internal cavity of the housing, and wherein the reflective substrate simultaneously reflects and passes visibly discernible electromagnetic radiation; and wherein the signaling assembly further comprises a reflector having first and second portions, and wherein the individual portions are disposed in reflecting relation relative to at least one of the plurality of electromagnetic radiation emitters, and wherein the first portion of the reflector reflects electromagnetic radiation emitted by one of the plurality of electromagnetic radiation emitters in a first direction so that it may pass through the reflective substrate, and be seen from a first position, and the second portion of the reflector reflects electromagnetic radiation by at least one of the plurality of electromagnetic radiation

emitters in a second direction so that it may be viewed from a second position which is substantially opposite to the first position.

25. A signaling assembly as claimed in claim 24, and wherein the plurality of electromagnetic radiation emitters are each mounted in substantially the same orientation relative to the reflective substrate.

26. A signaling assembly as claimed in claim 24, and wherein the plurality of electromagnetic radiation emitters are individually mounted in different orientations relative to the reflective substrate.

27. A signaling assembly as claimed in claim 24, and wherein the first portion of the reflector is disposed in substantially eccentric reflecting relation relative to the at least one electromagnetic radiation emitter, and the second portion of the reflector is disposed in substantially concentric reflecting relation to the at least one electromagnetic radiation emitter.

28. A signaling assembly as claimed in claim 24, and wherein the reflective substrate has a reflective coating deposited thereon which permits the passage of visibly discernible electromagnetic radiation therethrough.

29. A signaling assembly as claimed in claim 24, and wherein the reflective substrate has a first region which has a reflective coating deposited thereon and which substantially prevents the passage of visibly discernible electromagnetic radiation therethrough, and a second region, which is adjacent to the first region, and which is substantially devoid of any reflective coating and which permits the passage of visibly discernible electromagnetic radiation therethrough, and wherein the average reflectance of the reflective substrate including the first and second portions is greater than about 30%.

30. A signaling assembly as claimed in claim 28, and wherein the reflective coating comprises chromium.

31. A signaling assembly as claimed in claim 28, and wherein the reflective coating comprises a dichroic coating.

32. A signaling assembly as claimed in claim 19, and wherein the light channeling assembly is made of a lightweight, flexible material or a foam.